

Six Lessons We Learned Applying Six Sigma
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As Chief Financial Officer of Kennedy Space Center (KSC), I'm not only responsible for financial planning and accounting but also for building strong partnerships with the CFO customers, who include Space Shuttle and International Space Station operations as well all who manage the KSC Spaceport. My never ending goal is to design, manage and continuously improve our core business processes so that they deliver world class products and services to the CFO's customers.

I became interested in Six Sigma as Christa Casleton (KSC's first Six Sigma Black belt) applied Six Sigma tools and methods to our Plan and Account for Travel Costs Process. Her analysis was fresh, innovative and thorough but, even more impressive, was her approach to ensure on-going, continuous process improvement. Encouraged by the results, I launched two more process improvement initiatives aimed at applying Six Sigma principles to CFO processes that not only touch most of my employees but also have direct customer impact.

As many of you know, Six Sigma is a measurement scale that compares the output of a process with customer requirements. That's straight forward, but demands that you not only understand your processes but also know your products and the critical customer requirements. The objective is to isolate and eliminate the causes of process variation so that the customer sees consistently high quality.

Six lessons we learned applying Six Sigma...

Lesson One – Be prepared to address fundamental “strategic” and “organizational” issues.

Six Sigma takes aim at the Core Business Processes which cut across every CFO function as we deliver products and services to our customers. My management team first identified and organized our core business processes which caused us to distinguish the core from our enabling processes. Enabling processes are those that support our core business process, i.e. training of employees, reporting results, etc. This discussion triggered a reorganization effort that put all our enabling processes in one new organization, called the Business Services Office. As you can tell, a Six Sigma launch brings you face-to-face with strategic and organizational issues.

Lesson Two – Take time to pick the right process.

We started thinking “we knew it all”. We are ISO certified; we felt confident that we understood our processes and they were under control. Furthermore, if you're trying to demonstrate a proof of value in a new initiative, like Six Sigma, you need to select one of the CFO's core business processes that touches as many people as possible. It needs to be a process that, once analysis is complete, it's easy to extrapolate the application to other processes. A corollary to this lesson is be sure to narrow the scope. You need to resist the temptation to take on the whole end-to-end process. Zero in on a sub process that's causing the most pain and also a part of the process that's up front. We didn't invest enough time to do that right which caused the Six Sigma team to do the work for the CFO leadership team.

Lesson Three – Pick the Process Owner early not at the end when the team's work is finished.

Sure the CFO or the CEO owns the process. That's not what we mean. The Process Owner is the person assigned that role and who "behaves as if," he or she owns the process. He or she worries about process performance, is accessible every day and is the one person the CFO looks to for process accountability. Process Ownership is not a recognizable role in the CFO organization; it doesn't fit anywhere in the standard position descriptions and there's no spot for it on the organization chart. After rigorous process and root cause analysis, it was clear that unclear process ownership was a big reason why the process got into the shape it was in.

Lesson Four – Get serious about Six Sigma team resources.

We used the part-time approach coupled with assurances from the project sponsors that the Six Sigma work has the "top priority". That was a big mistake! Stuff happens and that stuff becomes an over-the-top priority. These forces work on the team physically and emotionally. No one instance stands out but the cumulative effects are very noticeable on team productivity and morale. Our next effort will dedicate a four-person, Six Sigma team full-time for 90 days.

Lesson Five – Pay attention to when you launch a Six Sigma effort

We launched Six Sigma training in July knowing that the three weeks of training would be separated by a month of hands-on application of the new tools and methods. The demands of fiscal year end and then the Thanksgiving and Christmas holidays pushed the third week of training into January. The team lost focus and momentum and required lots of on site coaching by IBM's Master Black Belt. We have now settled on two 90 day windows of opportunity for Six Sigma work.

Lesson Six – Get expert help in planning and implementing the first few Six Sigma projects

Don't try to launch and manage a Six Sigma initiative on your own. There are pitfalls and decisions that can make or break project success. We hired IBM's Six Sigma Practice to train our project teams and to coach them through the planning and implementation phases of work.

With three Six Sigma projects under our belt, we are very pleased with the results.

First, we improved productivity as we reduced the man-hours, materials and energy the processes consume while simultaneously improving process output quality.

Second, we now have eight people trained in Six Sigma's rigorous process improvement methodology. They are familiar with over 100 diagnostic and analytical tools which they can apply to any process.

Third, we're on track to not only drive breakthrough improvement but also to institutionalize ongoing process improvement through a set of metrics that simultaneously ensures process control and customer satisfaction.

Fourth, although Six Sigma analysis and improvement recommendations are process-centered, this work engaged process customers outside the CFO Directorate and enlisted support of every management level within the Office of the CFO.

Credits:

Our Six Sigma journey involved many CFO staff in important work ranging from team sponsorship to data collection, from briefing top management to on-the-ground implementation of improvement recommendations and from collecting and translating the voice of the customer to standing up process control metrics and process control systems. We therefore credit the following people for their support: Jean Brantley and the KSC Travel Office staff. The Contractor Cost Analysis Team and the Labor Distribution Team.

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